

## **19th Advanced Course**

## Thinking, Reasoning, and Development

30 June – 2 July 2010

Thursday afternoon, July 1, 2010

## 17h 00 **P. Klaczynski**, University of Northern Colorado Magical thinking through development: the case of stigmatization

## Abstract:

Before entry into formal school, children develop "theories" of illness that allow them to generate hypotheses and explanations for sickness. Although their theories are rudimentary, children understand that diseases can be contracted through contamination and can be contagious. However, both children and adults tend to overgeneralize their beliefs about illnesses to unfamiliar conditions that may bear only superficial resemblance to actual illnesses. This tendency may have adaptive value: Children are, in fact, reluctant to use objects that may have been contaminated by sick peers. The wariness children expressed toward individuals with actual diseases may, however, give rise to unwarranted beliefs and fears. For instance, obese individuals have some characteristics that parallel those of contagious illnesses (e.g., rashes, profuse sweating, breathlessness). Because their understanding of contagion is limited and they generalize their theories of illnesses to individuals on the basis of surface-level appearance cues (i.e., false positives) that could signify contagious diseases, children may react to obese individuals as though obesity can be interpersonally transmitted and, consequently, may be wary of obese peers, objects that have come into contact with obese children, and non-obese peers who have been associated with obese children.

Three studies tested the hypothesis that children avoid objects and peers associated with ("contaminated by") obese children. In each study, children were identically flavored drinks "created" by obese and non-obese children; each bottle was labeled with the beverage's name, nutrition information, and a picture of the child "drink creator." After tasting each drink, children rated drink flavor and the likelihood of getting sick from the drink. In Studies 1 and 2, prior to tasting the drinks, participants were read an "illness only" or "contagious illness" priming story. Priming stories involved hypothetical children who ate became ill after eating an



unfamiliar food; in "contagious illness" condition, this illness was transmitted to other children. Approximately 7-10 days after tasting the drinks, participants were asked to remember the child who had "created" the worst drink.

In Study 1, drink creators varied by gender, ethnicity (Chinese or Caucasian), and weight (average or obese); participants were 7-10 year-old Chinese and American children. Study 2 was conducted with American 6-10 year-old children, but a new category of "drink creator" was added: Children who had an amputated limb. Study 3 extended Studies 1 and 2 by examining (a) 3.5-5.5 year-old children, (d) reactions to yet another "drink creator" category—average weight children whose faces had been modified to show by symptoms of contagious diseases—and (c) liking for and beliefs about "target" average weight children who were associated either with other average weight children or with obese children.

With one exception in Study 3, ratings of beverage test were lower, the rated probability of sickness from tasting drinks was higher, and false memories were more frequent for obese-created drinks (i.e., indicating that the worst taste drink was a non-obese children, but later "remembering" that the worst drink was "created by an obese child) than for all other categories. In Studies 1 and 2, these findings were particularly powerful when contagious illness condition. In Study 3, both "obese-created" and "disease-created" drinks were rated as worst tasting, more likely to result in illness, and misremembered more often than drinks created by children in each other social category. Critically, results for "disease-created" drinks did not differ from those for "obese-created" drinks. Children also evidenced a "mere" proximity effect: Average-weight children associated with obese children were less liked and considered less friend than average-weight children associated with other average-weight children—but obese children associated with average children were liked no better or worse than obese children associated with other obese children. Finally, by and large, none of the effects listed above were related to age.

The findings support an illness overgeneralization theory of "obesity aversion" and suggest that children are not consciously aware of the biases they display toward obese children or the objects and peers that have been associated with obesity. The null age effect further support the conjectures that magical thinking or, at least, this form of magical contagion, does not decline with age and that implicit illness overgeneralization tendencies are not replaced by—but instead accompany the development of—more advanced reasoning abilities.